

1 LAS VEGAS

2 CLARK COUNTY, NEVADA

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5 In re:)
6 U.S. ENVIRONMENTAL PROTECTION AGENCY'S)
7 PUBLIC HEARING TO PRESENT ORAL TESTIMONY)
8 ON ENVIRONMENTAL PROTECTION AGENCY'S)
9 PROPOSED RADIATION PROTECTION STANDARDS)
10 FOR YUCCA MOUNTAIN, NEVADA.)
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13 PUBLIC HEARING

14 Taken at Las Vegas Conference Suites and Services
15 101 Convention Center Drive, Suites 113 and 114
16 Las Vegas, Nevada

16 On Wednesday, October 20, 1999
17 At 12:07 p.m.

24 Reported by: Teresa Lynn Dougherty
25 CCR No. 365

1 APPEARANCES:

2 For the Office of Radiation and Indoor Air:

3 STEPHEN D. PAGE
4 Director
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6 MARY KRUGER
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8 Center for Federal Regulations

9 FRANK MARCINOWSKI
10 Acting Director
11 Radiation Protection Division

12 GEOFF WILCOX, ESQ.
13 General Counsel

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1 Whereupon,

2 HEARING OFFICER: Good afternoon, ladies
3 and gentlemen. Welcome to the EPA's public hearing
4 on our proposed standards for Yucca Mountain,
5 Nevada.

6 I'm Steve Page. I'm the director of the
7 Office of Radiation and Indoor Air at EPA, and I am
8 the presiding officer for this hearing.

9 Before we start with your statements, I
10 would like to take about five minutes to introduce
11 the panel and describe our proposed regulation very
12 briefly and go over a few ground rules for the
13 hearing.

14 First ground rule, no cell phones in
15 here.

16 Let's introduce the panel first, and then
17 we'll go over some information which should take
18 about five minutes. On your left, I'd like to
19 introduce Frank Marcinowski who is the acting
20 director for the Radiation Protection Division in
21 the Office of Radiation and Indoor Air at EPA. To
22 the right of me -- your right is Mary Kruger,
23 director of the Federal Regulation Center, and
24 Geoff Wilcox who's an attorney for EPA's Office of
25 General Counsel. We're all EPA employees.

1 Just in terms of background on our

2 Yucca Mountain proposed standard, in 1992 Congress
3 gave EPA the task of setting a standard to protect
4 the public health and environment from harmful exposure
5 to radioactive waste that may be disposed in the
6 proposed underground repository at Yucca Mountain.

7 While EPA sets the standards, the
8 Nuclear Regulatory Commission has the
9 responsibility of ensuring that the Department of
10 Energy can demonstrate that the repository meets
11 the standards.

12 Siting a repository at Yucca Mountain
13 raises many complex technical, scientific, and
14 policy issues. For more than five years, we have
15 conducted extensive information gathering
16 activities and analyses to understand these
17 issues.

18 Our goal is to issue standards that are
19 scientifically sound, that can be reasonably
20 implemented, and above all, that are protective of
21 public health and the environment.

22 Our proposed standards address all
23 environmental pathways, air, water and soil. We
24 designed the proposed standards to protect the
25 closest residents to the repository to a level of
1 risk within the range that we consider acceptable

2 for all other cancer-causing pollutants.

3 The closest residents to the repository
4 are currently located at Lathrop Wells. This means
5 that those farther away would be given even more
6 protection.

7 In addition, we're proposing to protect
8 the groundwater resources of Nevada. Because the
9 proposed repository sits above an important
10 groundwater aquifer, we're proposing that this
11 valuable natural resource be protected to the same
12 limit to which every other source of drinking water
13 in this country is protected.

14 We want to provide this protection since
15 the water is currently used for drinking,
16 irrigation, and dairy cattle. And in the future,
17 this resource could also supply water to many
18 people in the fast growing and surrounding areas.

19 This proposed regulation and these
20 hearings are important milestones in a series of
21 steps to ensure public involvement throughout the
22 decision making process. We're here today to
23 listen to your views and concerns on our proposal.

24 EPA is also seeking written comments on
25 our proposed standard. All written and oral
1 comments will be carefully considered before we

2 develop the final standards.

3 In terms of ground rules for today's
4 hearing, let me just go over a few things. We'll
5 try to keep it as informal as possible and give
6 everybody a chance to speak because that's the
7 goal.

8 First, the speakers will be asked to
9 present their statements, and you will not --
10 excuse me, you shouldn't expect a response from the
11 panel.

12 We have a court reporter who will
13 produce a verbatim transcript of today's
14 proceedings, so it's important that we get a clear
15 and uninterrupted record. If you have a written
16 copy of your statement, we'll be glad to accept it
17 when you're called to testify.

18 All speakers should identify themselves
19 for the court reporter, and spell your name for the
20 record. Please speak slowly and clearly, and stop
21 if either the court reporter or I ask you to do
22 so. It will be just a matter of getting a precise
23 record is what we're trying to do.

24 During these proceedings for
25 clarification purposes only, it may be necessary
1 for the court reporter or members of the panel or

2 me to question speakers about specific statements
3 made during the testimony.

4 Given the number of people that have
5 signed up for the opening session of this hearing
6 today, we're asking folks to try to limit their
7 statements to ten minutes. And what we'll do is if
8 it's going much beyond ten minutes I may signal
9 you.

10 We have an official light set up here,
11 but I don't think that's going to be necessary at
12 this point. The ten-minute limit is intended to
13 make sure that everybody who came here to speak
14 gets a chance to do so.

15 We do want to hear everybody's
16 testimony. And if everybody -- if we get all the
17 speakers in the room that are here during the one
18 particular time and there's no other speaker left,
19 then the folks who limit themselves to ten minutes
20 we'll go back and ask if they want any further
21 elaboration.

22 So again we're going to be here all
23 afternoon and into the evening, so our intention is
24 to make sure that we get everybody's statement and
25 we hear what you want to do. But just out of
1 consideration for others, please try to limit your

2 first rounds of statements to ten minutes.

3 The written comments, just as a
4 reminder, may be submitted to us no later than
5 November 26, 1999. Anything you didn't get to say
6 today or anything you wish to say in response to
7 what's been said here may be submitted for
8 consideration. The information submitted in
9 writing is given the same weight and importance as
10 oral testimony.

11 And please see the information table for
12 the docket locations and the hearing ground rules
13 if there are any questions.

14 A transcript of today's hearing will be
15 available for review in our docket in Washington,
16 DC. You can get information on the back table for
17 that -- or the front table, excuse me.

18 If there are no questions on procedures,
19 seeing none, let's go ahead and start. And you'll
20 have to forgive me in terms of the pronunciation of
21 names. That's again why we ask you to go
22 through -- when you're coming up to speak to please
23 spell your name so we get that on the record.

24 Is Ian Zabarte here?

25 Doesn't seem to be.

1 The second speaker that signed up is

2 Dr. Jacob Paz.

3 DR. PAZ: My name is Dr. Jacob Paz.

4 HEARING OFFICER: Is that P-a-z?

5 DR. PAZ: P-a-z. I used to work for
6 EPA, OSHA, Nevada Test Site, university.

7 What I'd like to be very briefly in
8 which I found some various flaws in the risk
9 assessment particularly. I'm going to address it.
10 And what I'm saying, YMP risk assessment, science
11 or science fiction.

12 Particularly I'm concerned about is the
13 mixture of radionuclides. Here is which took it
14 from the table and also the radionuclides which we
15 are present in the waste packages.

16 Reading YMP risk assessment, your
17 material, I found several problems. Number one, in
18 YMP risk assessment and EPA assessment, they did
19 not take into account the affects of radionuclides
20 mixtures. Second, EPA assumed that the total
21 affect of all radionuclides is additive. This is
22 incorrect.

23 The only literature which I have
24 conducted require extensive literature review using
25 Med Line on radionuclide mixtures is the Russian
1 work. And if somebody want abstract I have it.

2 The exposure rates to cesium and
3 strontium-85 for a period 30, 56 days and 90 days
4 and have shown that there was an increase in
5 production of free radicals. And the mechanism of
6 radiation damage is the production of free
7 radicals. I have not seen this being addressed in
8 YMP or EPA approach.

9 I'm not trying to attack YMP, but I want
10 to state for the records that in January of this
11 year I approached YMP for and requested some
12 experimental study. A reply in public meeting
13 April 14th, We don't want to open a can of worms.

14 Why this is important, because if you
15 going to make an assumption of chemical mixtures
16 and you have additive, you don't have any mechanism
17 to make projection of accurate scientific
18 evaluation.

19 I'm using one technique to do it. So
20 much money has been spent on paperwork. I don't
21 know if I can ask, if inappropriate, to use some
22 money to do some scientific to validate it 15
23 milligram.

24 Because 15 milligram, if you're going to
25 use it as a risk assessment, using alpha particle
1 inhale and drinking has different affect different

2 tissues. What is total affect.

3 To make it a little bit more
4 complicated, you're going to generate one of the
5 biggest hazardous waste site on earth at YMP.

6 I'm particularly concerned about the
7 chromium, molybdenum, nickel. And continue, in YMP
8 and risk assessment environmental statement, they
9 do not comply with EPA rule and regulation such as
10 RCRA. You cannot show me. It's a violation of
11 the law.

12 Second, I have mentioned no scientific
13 data is provided with regard to potential
14 interaction potentiation (phonetic), additive or
15 synergistic pack in EPA or YMP proposed.

16 You're proposing 15 milligrams. You
17 don't know what the hell is going on with all the
18 radionuclides. To make it work, we have a problem
19 of the complex mixture from radionuclides and the
20 heavy metals. It was not -- has been taken into
21 account.

22 I would like just to bring to the record
23 there are two risk assessment for chemical mixture
24 procedure document. One is Guidelines for Health
25 Risk Assessment Chemical Mixture, EPA 1996, and
1 Risk Assessment Guideline for Super Font

2 (phonetic), EPA 1989.

3 This has not been addressed at YMP. We
4 don't know what is the effect of protecting
5 groundwater from radionuclides and complex
6 mixture. This was not been addressed not at all.
7 Thank you.

8 If you have any questions --

9 HEARING OFFICER: Dr. Paz, just for the
10 record, I just want to make sure that you give the
11 acronym YMP, that you state what that stands for.

12 DR. PAZ: Yes. Yucca Mountain Project.

13 HEARING OFFICER: Thank you.

14 DR. PAZ: By the way, just for the
15 records I'm giving you the citations so you can
16 enter it, the Russian work. Thank you.

17 HEARING OFFICER: Will we get copies of
18 your slides?

19 DR. PAZ: Yes. I can give it to you.

20 HEARING OFFICER: Take that out to the
21 front. We'll put that as part of the record too.
22 Thank you, Dr. Paz.

23 Is Ian Zabarte here yet?

24 Judy Treichel. Hope I pronounced that
25 right.

1 MS. TREICHEL: Yes. You made it. Judy

2 Treichel, T-r-e-i-c-h-e-l. And I'm the executive
3 director of the Nevada Nuclear Waste Task Force.

4 First, I would like to say that there's a
5 real problem with people getting to the hearings.
6 You may have noticed that. We have hearings going
7 all over the country and all over the State of
8 Nevada.

9 And I've received calls from people who
10 are up in Ely, Nevada, because there is the DOE,
11 EIS -- draft EIS hearing going on there, and there
12 are hearings in other places.

13 There are county officials and
14 representatives of other citizen groups who just
15 had to make the choice and could not make it here,
16 and they are being encouraged to submit written
17 comments.

18 I would like the record to show that we
19 truly appreciate the independence that the EPA has
20 shown. As rules have changed on this project so
21 many times, EPA is the one agency out of three when
22 you count DOE, the Nuclear Regulatory Commission
23 and the EPA, that did not choose to change its
24 rules and in fact tried not to make it a different
25 rule for Yucca Mountain but was ordered to do so.

1 And we appreciate the fact that you've stayed very

2 independent.

3 I have stated, and will again state in
4 written comments, that I believe a zero release
5 standard should be set for Yucca Mountain, and
6 there are several reasons for that.

7 Within Nye County, in that area there
8 are two very large dairies. One is directly down
9 gradient from Yucca Mountain. It shares that
10 aquifer with Yucca Mountain. The other one is in
11 Pahrump which is the next valley over. And then
12 there's a third dairy also in Southern Nevada. I
13 will give you an article out of the paper
14 describing those dairies.

15 The one in Amargosa Valley is the
16 largest of the three, and it's not only just a
17 dairy supplying milk through the distribution
18 system in Los Angeles but also is either beginning
19 or has started to sell I guess what's called
20 certified organic milk.

21 And that's something that you really
22 have to strive for, you have to be very careful
23 for. And they believe the economic impact of being
24 a neighbor with a nuclear waste repository would
25 probably completely finish any attempt at that sort
1 of business.

2 The other reason that I believe zero
3 release standard should be at least the goal, and
4 well should probably be the standard, is that the
5 Department of Energy in its presentations to the
6 people, the public, to other agencies plans for
7 Yucca Mountain to leak, to release radiation.

8 And I will also put in the record a
9 picture, a drawing, they have of a person in
10 Amargosa Valley and the sorts of doses that they
11 would receive.

12 To anticipate that there would be doses
13 to a population who is not only not in favor of
14 this facility but was not any part of the problem
15 that led up to its proposed establishment I just
16 don't think should be allowed to happen.

17 I also have a sort of picture that the
18 State of Nevada produced.

19 Will you answer my purse. [Phone rings]

20 The State of Nevada produced showing
21 earthquake --

22 We work on very small budgets, so this
23 turns into my office.

24 Showing 20 years worth of earthquake
25 activity here.

1 As you've heard from people here, we

2 were just very recently bounced around by a rather
3 large event that was not expected, was on a fault
4 that was considered to be inactive.

5 And many of the faults out at Yucca
6 Mountain going through the mountain and all around
7 it are either considered active, inactive, but they
8 know they're there, and there's a real potential
9 for seismic activity.

10 And the fourth reason that I would
11 propose that there be a zero release standard is
12 that it's not unrealistic. There are many
13 countries now looking at repositories that are
14 looking at zero release.

15 Canada has the goal of a zero release
16 standard, so does Sweden. And there are others
17 that are 5 millirem, 10 millirem, and I suppose
18 there are others that are greater as well.

19 But I think considering the problems in
20 the area where the repository is being studied and
21 also just a repository project, when you're talking
22 about disposal and isolation, if that's the goal
23 then there should not be releases.

24 I would only conclude by saying that if
25 there is something wrong with Yucca Mountain there
1 is something wrong with Yucca Mountain. If you

2 can't comply with the zero release standard, or if
3 you can't comply with a 4 millirem groundwater
4 standard, that is not a suitable repository.

5 And the people of Nevada or anyone that
6 would be exposed to releases is way more important
7 in the establishment of a repository.

8 The United States apparently is in a
9 race to be the first to actually establish a
10 repository in the world, and I don't think winning
11 the race is important at all. The health and
12 safety of the people is. Thank you.

13 HEARING OFFICER: Thank you.

14 Ian Zabarte.

15 If you will spell your last name for the
16 record, that would be helpful.

17 MR. ZABARTE: Good afternoon. My name
18 is Ian Zabarte. That's spelled Z-a-b-a-r-t-e.

19 I have a copy of my comments which I'd
20 like to leave for the record, as well as a Nuclear
21 Free Zone Resolution which I will speak about in a
22 moment.

23 The Newe people, Western Shoshone
24 people, practice an ongoing oral tradition of
25 communication. We have a sophisticated social
1 communication process which do not respond well

2 with US written hearing processes. This includes
3 notification of meetings and proposed radiation
4 standards.

5 For this reason, the process of
6 communicating basic information such as the
7 proposed Environmental Radiation Protection
8 standards for Yucca Mountain, Nevada, proposed rule
9 under 40 CFR, Part 197 in the Federal Register on
10 Friday, August 27, 1999, never arrive at our
11 office.

12 This is the reality under the context
13 under which I appear before you here today, the
14 importance of this fact that proposals made by the
15 United States purporting to adequately represent or
16 protect the Newe people are misleading.

17 There is no lawful authority for the
18 United States to exercise a so-called trust
19 responsibility on behalf of the Western Shoshone
20 government. That role is reserved under the
21 inherent sovereign authority of the Western
22 Shoshone National Council.

23 We have undertaken research into the
24 existing uncertain health affects which are known
25 to be plausible from radiation exposure in
1 collaboration with researchers from the Childhood

2 Cancer Research Institute and the Marsh Institute
3 at Clark University.

4 We are currently in the process of
5 determining the causal relationship between nuclear
6 weapons testing and our own experience of adverse
7 health affects.

8 We are reviewing existing research and
9 international radiation standards. We believe that
10 these standards today are inadequate and that
11 further research and investigation are necessary to
12 better understand the doses the Newe people were
13 exposed to.

14 The National Council will then set
15 standards which are appropriate and protective of
16 the health and well-being of the Western Shoshone
17 Nation.

18 In the meantime, the National Council
19 has enacted a Nuclear Free Zone Resolution
20 declaring the whole of Newe Sogobia, which is
21 Western Shoshone Territory, nuclear free.

22 The contemporary black and white print
23 as in the Council's various conventions,
24 resolutions, treaties, procedures, judicial
25 decisions, and charter constitute additional
1 authorities at law.

2 Authority for the enactment of this
3 resolution stem from the inherent sovereignty of
4 the Western Shoshone National Council assembled,
5 customs, laws and traditions of the Western
6 Shoshone Nation recognized and agreed to by the
7 United States when it formally entered into a legal
8 relationship with the Western Shoshone Nation under
9 international norms by signing the 1863 Treaty of
10 Ruby Valley.

11 One of the fundamental laws of the
12 Western Shoshone Nation is the sovereignty and
13 supremacy of the National Council assembled. No
14 court of law could ever strike down a National
15 Council act as being unlawful.

16 The National Council is deemed to be the
17 best interpreter of the Western Shoshone law, and
18 therefore there is no rebuttable presumption that
19 any National Council legislation is unharmonious
20 with the law.

21 The Western Shoshone Nation won formal
22 recognition by the United States through the
23 negotiation and signing of a treaty of peace and
24 friendship secured for the benefit of the Western
25 Shoshone and the United States.

1 The Treaty of Ruby Valley, which is

2 referenced at 18 Statute, 689 to 692, granted
3 specific rights to the United States. All other
4 right, power, title and interest within the
5 exterior boundaries of the Western Shoshone
6 Territory are reserved by the Western Shoshone
7 Nation for the use and benefit of Western Shoshone
8 citizens.

9 The Western Shoshone Nation possesses an
10 express reservation of power in freedom of action.
11 The exercise of these powers exists in the National
12 Council of the Western Shoshone Nation.

13 The only rights surrendered by the
14 Western Shoshone Nation to the United States come
15 by the Treaty of Ruby Valley.

16 It is through the Treaty of Ruby Valley
17 that the United States may claim a right or
18 exemption from the laws of the Western Shoshone
19 Nation and also through the Nuclear Free Zone
20 Resolution, which I have given to you, which has
21 provisions for dealing with existing problems from
22 the past US nuclear activities and creates an
23 opportunity under Section 2 for the harmonization
24 of the US regulation under Western Shoshone law.

25 Further understanding of the lawful
1 basis for the legitimate authority of the Council

2 is recognized by the United States law and
3 international as follows:

4 The Northwest Territorial Ordinance of
5 1787: The utmost good faith shall always be
6 observed toward the Indians. Their lands and their
7 property shall never be taken from them without
8 their consent. And in their property right and
9 liberty, they shall never be invaded or disturbed.

10 United States Constitution, Article VI,
11 Paragraph II: This constitution and laws of the
12 United States which shall be made in pursuance
13 thereof and all treaties made, or which shall be
14 made under the authority of the United States shall
15 be the supreme law of the land. And the judges in
16 every state shall be bound thereby, anything in the
17 constitution or laws of any state to the contrary
18 not withstanding.

19 The Treaty of Guadeloupe Hidalgo of
20 1848: Special care shall be taken against those
21 invasions against the Indians which the United
22 States have solemnly obliged themselves to
23 restrain.

24 Also the Act of Congress Organizing the
25 Territory of Nevada in 1861: Providing that
1 nothing in this Act contained shall be construed to

2 impair the rights or property now pertaining to the
3 Indians in said territory so long as such shall
4 remain unextinguished by treaty between the United
5 States and the Indians.

6 And then of course there is the 1863
7 Treaty of Ruby Valley which recognizes the boundary
8 of our territory and our inherent rights.

9 Western Shoshone Government understands
10 that matters based upon the United States
11 Constitution and Western Shoshone national custom
12 and treaties are political issues.

13 Nonetheless the Environmental Protection
14 Agency must take due notice of the facts in the
15 relationship between the United States and the
16 Western Shoshone Nation to put into operation
17 superior power to protect the health, rights,
18 liberties and freedoms and environment of the
19 Western Shoshone people from an increasingly
20 aggressive United States bureaucracy.

21 The protections intended and provided by
22 these laws preempt the application of United States
23 law except and if only by a lawful claim for
24 nuclear material transportation, use, storage, or
25 disposal under the Treaty of Ruby Valley and the
1 aforementioned nuclear free zone resolution.

2 Racial discrimination is believed to
3 play an important role in selecting Newe Sogobia
4 for site as a proposed high level nuclear waste
5 repository from nine sites to one of a politically
6 weak one within Newe Sogobia.

7 We expect the United States
8 Environmental Protection Agency to investigate the
9 processes by which site selection and standards are
10 proposed to uncover institutional racism which the
11 National Council believes results in trespassing by
12 the Department of Energy, the Bureau of Land
13 Management, the United States Air Force, and the
14 State of Nevada, and other foreigners who seek to
15 impair, usurp or otherwise destroy the rights and
16 authority of the Western Shoshone Nation.

17 We expect this investigation to uncover
18 racial discrimination and to take place under the
19 Environmental Justice directive of Mr. Clinton
20 through Executive Order 12898.

21 The previous comments are provided on
22 the basis of responsibility and authority of the
23 Western Shoshone National Council as the legitimate
24 protector of the interests of the Western Shoshone
25 people to ensure that the Western Shoshone public
1 health, safety, and property are protected.

2 United States law currently provides too
3 little protection for the Western Shoshone people.
4 And absent lawful authority, no part of the
5 Environmental Policy Act, or EPA rules, or the
6 Nuclear Regulatory Commission regulations are
7 applicable.

8 Due to the fact that inadequate notice
9 and communication exist in the strained relations
10 between the Western Shoshone Government and the US,
11 further specific comments on EPA Environmental
12 Radiation Protection Standards for Yucca Mountain
13 will be provided to the EPA by the November 26,
14 1999 deadline.

15 At this time, we also request an
16 extension of the time to submit comments which will
17 ensure that the broad interests of the Western
18 Shoshone Nation are included and considered. Thank
19 you.

20 HEARING OFFICER: Thank you. Did you
21 leave a copy of your statement?

22 MR. ZABARTE: Yeah, I'll leave a copy.

23 HEARING OFFICER: Thank you.

24 MR. ZABARTE: Thanks.

25 HEARING OFFICER: Andrew Remus,
1 R-e-m-u-s.

2 Dennis Bechtel.

3 MR. BECHTEL: For the record, my name is
4 Dennis Bechtel. I'm a planning manager for the
5 Department of Comprehensive Planning for Clark
6 County, Nevada.

7 HEARING OFFICER: Would you spell your
8 name please.

9 MR. BECHTEL: B-e-c-h-t-e-l.

10 HEARING OFFICER: Thank you.

11 MR. BECHTEL: These are the comments of
12 the Clark County, Nevada, Department of
13 Comprehensive Planning, Nuclear Waste Division, to
14 the proposed Environmental Protection Agency
15 environmental protection standards for Yucca
16 Mountain.

17 We appreciate the EPA's convening these
18 hearings on this important issue. Clark County
19 will be submitting more comprehensive comments
20 prior to the 26 November deadline.

21 Clark County has been actively and
22 directly involved in the oversight of the Yucca
23 Mountain program since 1983. In 1988, Clark County
24 was designated as an effective unit of local
25 government under provisions of the Nuclear Waste
1 Policy Amendments Act of 1987.

2 Clark County, by the way, is where
3 you're at in Las Vegas.

4 Clark County is one of the ten affected
5 units of local government in Nevada and California
6 that are monitoring Department of Energy Yucca
7 Mountain program activities.

8 Of major concern to Clark County is the
9 health and safety of permanent residents and
10 visitors in Nevada, as well as throughout the
11 nation, for the proposed repository program.

12 While we appreciate the hearings and the
13 more rigorous standards that are being proposed by
14 the EPA, we are still concerned about the lack of
15 rigor that is currently being applied in the site
16 characterization program for Yucca Mountain.

17 The Yucca Mountain site is extremely
18 complex geologically and hydrologically. There has
19 been too much emphasis however on models and expert
20 elicitation processes rather than the development
21 of comprehensive information and data.

22 Since this is a unique undertaking,
23 something that will affect many generations of
24 people, science is more important than schedule.

25 Since the political process however is
1 more the major driver of this program, it is

2 important therefore for the regulatory agencies,
3 the EPA and the Nuclear Regulatory Commission, to
4 maintain a strong oversight role to ensure that the
5 Yucca Mountain site is able to meet the standards
6 proposed.

7 Another major concern is that the Yucca
8 Mountain program is being treated as an isolated
9 project without considering that it should be
10 evaluated along with other issues associated with
11 the Nevada Test Site and contamination.

12 In the many years of subsurface nuclear
13 testing for example, it is thought that
14 contamination from testing would be encapsulated in
15 a glass matrix and prevented from migration.

16 There is evidence however that plutonium
17 from several tests migrated from the testing area.
18 This further emphasizes the importance of
19 considering Yucca Mountain in the context of other
20 NTS activities.

21 The role of EPA in setting and
22 regulating standards: There has been a proposal in
23 pending legislation, S.1287 in Congress, to utilize
24 the Nuclear Regulatory Commission as the agency
25 that would regulate the environmental protection
1 standards at Yucca Mountain.

2 The EPA has the regulatory
3 responsibility we feel to develop, implement and
4 monitor environmental protection standards.
5 Utilizing the NRC to set protection standards we
6 feel would compromise the integrity of this
7 process. This is the EPA's responsibility, and
8 they should continue to serve this function.

9 The individual protection standard: The
10 15 millirem standard being proposed from all
11 potential pathways of radionuclide transport and
12 exposure provides greater protection for the
13 public, and we support the implementation of the
14 standard.

15 We feel however that the only
16 supportable standard should be the one that would
17 provide no exposure to the public.

18 DOE, it should be noted, has shifted its
19 emphasis over time from a process that would rely
20 totally on the geology of the area to protect the
21 public to one where an engineered system has
22 replaced the environment in protecting the public.
23 This brings the time frame to exposure to probably
24 being in the less than 10,000 year time frame at
25 most.

1 More appropriately however would be

2 considering the protection necessary to equate to
3 the period of the danger which would far exceed the
4 10,000 years proposed in the standard, and as we
5 understand it could be as long as 1 million years.

6 Groundwater standard: Clark County
7 feels it is also appropriate to incorporate a
8 groundwater standard of 4 millirems equivalent to
9 that employed within the Safe Drinking Water Act.

10 This would be consistent with the use of
11 water by a critical group member for domestic
12 purposes. Communities throughout the nation that
13 rely on groundwater supplies for domestic purposes
14 are similarly protected, and we should expect no
15 less for our future generations.

16 Reasonably maximally exposed
17 individual: The utilization of the RMEI is being
18 proposed for employment in conjunction with the
19 standard. While this is proposed as conservative,
20 we would hope that the individual exposed would be
21 the one that would experience the most critical
22 health and safety affects. This would be the young
23 and the elderly.

24 Given the greater health effects from,
25 for example, the accident at Chernobyl, this we feel
1 would be the more conservative way to apply the

2 standard.

3 Some other issues: Although much of
4 Nevada including the project area currently has low
5 population densities, you should recall that the
6 phenomenal growth of Southern Nevada has
7 experienced over the several decades makes it
8 somewhat suspect.

9 This growth will probably continue for
10 some time. It is conceivable therefore that the
11 area relatively close to Yucca Mountain would be
12 more urbanized with a greater population density.
13 This could result in an urban population utilizing
14 water supplies impacted by Yucca Mountain and
15 experiencing potential impacts.

16 It should also be noted that the greater
17 risk in the near future will be in the
18 transportation of the waste. EPA and the NRC as
19 regulatory agencies need to ensure that the public
20 is protected from the potential large number of
21 shipments of nuclear waste that will be transported
22 throughout the nation should Yucca Mountain open as
23 a repository.

24 Once again, we appreciate the
25 opportunity to provide comments on this important
1 issue.

2 As you're well aware, water is a scarce
3 resource in the West, and we're very protective of
4 our supplies. This is an extremely important issue
5 to us in the West.

6 And once again, Clark County will be
7 providing additional comments before the deadline.
8 Thank you.

9 HEARING OFFICER: Thank you.

10 Bob Loux.

11 MR. LOUX: Thank you. It's L-o-u-x is
12 the last name, and I am the executive director of
13 the Nevada Agency for Nuclear Projects in the
14 Nevada Governor's Office. I'm here on behalf of
15 the State. We'll provide a written copy.

16 The Energy Policy Act of 1992 directed
17 the Environmental Protection Agency to develop a
18 public health and safety standard specific to a
19 Yucca Mountain high level nuclear waste
20 repository.

21 In the proposed rule, environmental
22 radiation protection standards for Yucca Mountain,
23 Nevada, 40 CFR 197, the EPA has presented a number
24 of often complex options for various facets of the
25 rule, some combinations of which would result in
1 the waste containment capabilities of the site

2 along with the installed engineered barriers
3 dictating the actual implementation of the rule.

4 Such a rule simply would not meet the
5 broad requirement for objectivity in regulation,
6 and it would undermine any confidence in the safety
7 of the repository since the regulation would have
8 been manipulated to meet the capabilities of the
9 proposed site.

10 The proposed rule is fundamentally
11 flawed from the outset in that it has skewed the
12 basic notion of geologic disposal to accommodate
13 the known inability of the Yucca Mountain site to
14 isolate waste from the biosphere. This is
15 accomplished first through a misguided definition
16 of disposal and then through a misinterpretation of
17 the meaning of barrier.

18 The proposed definition of disposal
19 is "emplacement of radioactive material into a
20 Yucca Mountain disposal system with the intent of
21 isolating it for as long as reasonably possible and
22 with no intent of recovery."

23 This definition wrongly sets the goal of
24 geologic repository to be a delay of release of
25 radionuclides rather than waste isolation which
1 should include a controlled rate of radionuclide

2 release and transport beginning at some time in the
3 future.

4 The concept of delay of releases rather
5 than the prevention or control of releases is
6 amplified in the example of a barrier accompanying
7 its definition.

8 The definition correctly refers to a
9 material, structure or feature that prevents or
10 substantially reduces the rate of radionuclide
11 release and transport.

12 But then when it provides an example it
13 says it requires that a barrier "substantially
14 delays movement of water or radionuclides."
15 Prevention or substantial reduction of rates of
16 release and transport does not equate with delay of
17 release and transport.

18 The introduction of delay into the
19 concept of waste isolation is a direct result of
20 knowledge of the Department of Energy's current
21 concept of the Yucca Mountain repository in which
22 engineered barriers are relied upon to delay
23 essentially all releases until after the proposed
24 10,000 year regulatory period.

25 The geologic or natural barriers of
1 Yucca Mountain are known now to be incapable of

2 preventing or substantially reducing the rate of
3 significant radionuclide release or transport.

4 This is a clear case in which the EPA
5 has developed its regulation to compensate for the
6 inadequacies of the Yucca Mountain site in order to
7 enable repository development to continue to be
8 feasible at Yucca Mountain.

9 The final environmental impact statement
10 Management of Commercially Generated Radioactive
11 Waste by the Department of Energy in 1980 includes
12 in its discussion of geologic disposal the concept
13 of multiple barriers "to provide a series of
14 independent barriers to the release of
15 radionuclides to the biosphere."

16 This EIS is the basis for establishment
17 of the national policy for geologic disposal of
18 high level waste which provided the original
19 authority for EPA to promulgate environmental
20 radiation waste standards for repositories.

21 Introduction of the concept of delayed
22 releases as opposed to the prevention or
23 substantial reduction of the rate of release and
24 transport from the repository violates a basic
25 principle that underlies the national policy for
1 radioactive waste disposal, and it must not

2 prevail.

3 Currently the standard we're talking
4 about proposes a 10,000 year regulatory period
5 while recognizing that peak doses to individuals
6 would not occur until long after that time based on
7 current DOE performance assessment results.

8 The calculated doses increase through
9 time as the engineered barriers, primarily the
10 metal waste containers and other metal shields,
11 fail and radionuclides are released from waste
12 packages and rapidly transport into the biosphere.

13 The calculated peak dose is far in
14 excess of the dose standard proposed in the rule
15 and greatly exceeds any radiation protection
16 standard for the public currently considered to be
17 acceptable.

18 The EPA suggests that rather than
19 setting the regulatory period to extend to the time
20 of peak dose, DOE should consider this matter of
21 extraordinary peak dose rates in its EIS.

22 This evasion of regulatory
23 responsibility is unacceptable despite the EPA's
24 argument that beyond 10,000 years uncertainties in
25 performance assessments become overwhelming.

1 It is true that peak dose calculations

2 contain considerable uncertainty, but there is
3 little uncertainty that it would exceed individual
4 dose and groundwater standards proposed in this
5 rule.

6 The greatest uncertainty regarding peak
7 dose is in predicting when it occurs. This is a
8 result of a wide uncertainty in the calculated time
9 and rate of failure of the engineered barriers that
10 could affect when radionuclides dominate the peak
11 dose.

12 But the peak dose can be calculated
13 based on a range of release scenarios, and any
14 standard that does not require compliance at the
15 time of expected peak dose is inadequate.

16 With the exception of the regulatory
17 period in general, this proposed rule for Yucca
18 Mountain should be at least consistent with the
19 EPA's standard 40 CFR 191 that has been applied to
20 the geologic repository at the DOE's waste
21 isolation plant in Carlsbad, New Mexico.

22 Ideally a geologic repository should
23 provide complete isolation of the waste from the
24 biosphere for its hazardous lifetime, but
25 recognizing this may not be attainable through a
1 convincing performance assessment.

2 The safety standard for a high level
3 nuclear waste repository should be no less
4 stringent than that applied to repositories for
5 transuranic wastes at WIPP.

6 This would lead to the controlled area
7 being no long larger than 100 square kilometers
8 with its boundary being no farther than 5
9 kilometers from the location of the emplaced waste
10 and include the groundwater beneath it.

11 It would also include an all pathway
12 dose limit of 15 millirem per year and a
13 groundwater protection standard equivalent to that
14 applied under the Safe Drinking Water Act.

15 From a site specific perspective,
16 groundwater quality protection is a major concern
17 because unlike WIPP the potable groundwater at
18 Yucca Mountain is a resource that is currently
19 being shared by the public, and it should be at
20 least as well protected as groundwater supplies
21 throughout the nation.

22 The exposed individual considered for
23 compliance purposes should be a subsistence farmer
24 who represents a weighted age gender average
25 person.

1 The exposed individual in the proposed

2 rule represents a rural residential life-style
3 which is said to be nearly equivalent to that of an
4 average member of the critical group that others
5 have recommended as the exposed individual.

6 If as stated in the EPA's discussion of
7 the proposed rule, the risk from a Yucca Mountain
8 repository to the average member of the critical
9 group is about one half of that to a subsistence
10 farmer. Then certainly the more stringent exposure
11 case should be applied.

12 Given the broad uncertainties ranging in
13 several orders of magnitude in the dose and risk
14 calculations for a Yucca Mountain repository,
15 selection of an exposed individual for compliance
16 purposes who is only at twice the risk of that in
17 the proposed rule is reasonable and conservative.

18 It also provides a more defensible
19 life-style description than that compiled from
20 vicinity surveys for the rural residential
21 life-style.

22 EPA could have drafted a Yucca Mountain
23 specific standard that in respect to the dose limit
24 groundwater protection and regulatory boundary,
25 meaning the controlled area, was consistent with
1 the standard applied to WIPP and then added some

2 site specific considerations, such as gaseous
3 releases as related to population doses, the dry
4 climate, and known groundwater discharge locations
5 at the end of relatively rapid transport paths.

6 Instead the proposed rule is a highly
7 complex mixture of options, many combinations of
8 which would result in sacrificing safety to the
9 known deficiency of the site itself to isolate
10 radioactive waste.

11 Furthermore because of the known
12 necessity of the Yucca Mountain site to rely almost
13 exclusively on engineered barriers for waste
14 containment until they fail, EPA has changed the
15 goal of geologic disposal from prevention or
16 substantial reduction of waste release and
17 transport to simply delay of release of
18 radionuclides for as long as reasonably possible.

19 And then it has proposed a regulatory
20 period that is not consistent with the most
21 hazardous conditions expected to be created by the
22 Yucca Mountain repository.

23 Instead of providing for and requiring
24 assurance of the safety of a Yucca Mountain
25 repository, the proposed rule appears to be a
1 vehicle to permit licensing of an otherwise unsafe

2 repository site. Thank you.

3 HEARING OFFICER: Thank you. Mr. Loux,
4 I want to make sure I heard you correctly. You
5 will be submitting more comments before November
6 26?

7 MR. LOUX: Yes.

8 HEARING OFFICER: Thank you. Is that
9 statement that you have today submitted for the
10 record, or will you do it all at one time?

11 MR. LOUX: We'll do it all at one time.

12 HEARING OFFICER: Thank you.

13 MR. LOUX: Thank you.

14 Is Andrew Remus here yet?

15 MR. REMUS: Yes.

16 HEARING OFFICER: Andrew, if you would
17 spell your last name.

18 MR. REMUS: R-e-m-u-s.

19 Inyo County has not taken a position
20 either in support of or opposition to the
21 repository project. We do however support EPA's
22 authority to set standards for Yucca Mountain and
23 the requirement of a groundwater specific standard
24 for use in designing and licensing the Yucca
25 Mountain repository.

1 Regional groundwater contamination is in

2 the long term the primary pathway for exposure of
3 Inyo County residents to radioactive contamination
4 originating from the site.

5 And we expect as a result of the rapid
6 expansion of the population now being experienced
7 by Las Vegas and Pahrump to see during the waste
8 emplacement phase a gradual and significant buildup
9 of population in the California portion of the
10 Amargosa Valley.

11 Inyo, Nye, and Esmeralda Counties have
12 jointly sponsored hydrologic research on the
13 question of possible hydrologic connectivity
14 between the Lower Carbonate Aquifer that underlies
15 Yucca Mountain and surface water discharges in
16 Death Valley National Park.

17 Our studies point to the Lower Carbonate
18 Aquifer as a source of surface waters manifesting
19 themselves in Death Valley National Park. And
20 Death Valley, besides being a national resource, is
21 the source of the majority of Inyo County's tax
22 revenue and key to the economic viability of the
23 region to the entities of both the California and
24 Nevada side of the border.

25 This same research also appears to
1 indicate that the Lower Carbonate Aquifer may

2 extend southwards to the communities of Death
3 Valley Junction, Shoshone and Tecopa all of which
4 rely exclusively on groundwater.

5 There may be other possible geologic
6 conduits for contamination from Yucca Mountain to
7 reach Inyo County populations, and Inyo County is
8 conducting further research on that.

9 We have produced two scientific
10 investigations. The first one was done in
11 conjunction with Esmeralda County titled An
12 Evaluation of the Hydrology of Yucca Mountain,
13 Lower Carbonate Aquifer and Amargosa River, and the
14 second release just this March, Death Valley
15 Springs Geochemical Investigation.

16 This research meets the scientific
17 standards established by the federal government and
18 is funded primarily by the Department of Energy.

19 These documents will be submitted in
20 conjunction with our formal comments by the Inyo
21 County Board of Supervisors.

22 If the repository should survive the
23 environmental review and licensing processes, the
24 application of a groundwater compliance standard to
25 the repository should be accompanied by the
1 development of an array of monitoring wells at the

2 periphery of the site extending into the Lower
3 Carbonate Aquifer.

4 Such a system should be designed to
5 determine whether the repository is in compliance
6 with its design standard to provide early warning
7 of contamination and to augment the data
8 requirements for the repository modeling of
9 groundwater flow and contaminant transport. Thank
10 you.

11 HEARING OFFICER: That exhausts the list
12 of those who signed up in advance to speak. I'm
13 wondering at this point has anybody arrived that
14 wishes to speak that didn't sign up in advance?

15 Do any of the speakers who addressed us
16 previously want to elaborate on their earlier
17 statements? We'll ask you to do that in ten-minute
18 increments to allow others --

19 Ian.

20 MR. ZABARTE: Ian Zabarte again for the
21 Western Shoshone National Council.

22 Just to go on a little bit more of what
23 our radiation -- actually nuclear risk management
24 project is about, we're down-winders. We're
25 survivors of a long, strained relationship with the
1 United States. This is just the latest in a long

2 unfolding saga of our abuse at the hands of the
3 United States Government.

4 What we're finding is that our
5 life-style which doesn't provide as much shielding
6 and protection and has different exposure pathways
7 than the models used by the Department of Energy in
8 its offsite radiation exposure project studies has
9 contributed to about seven times greater risk than
10 understood previously.

11 This comes from our life-styles in types
12 of plants, animals that we would hunt, the times we
13 would do this, and the animals -- parts of the
14 animals that we would consume.

15 For example jackrabbit, we would eat the
16 whole rabbit. They're good but a thyroid full of
17 iodine 131 is not helpful in our ability to stay
18 healthy.

19 We're trying to become educated, trying
20 to deal with the adverse health affects which we
21 are experiencing, and we're trying to find out why
22 we have these problems.

23 And it's because of this we feel that it
24 isn't helpful to add risk to our people, risk which
25 we believe is cumulative. We think that brakes
1 need to be halted. We're concerned.

2 Last month there was a National Peer
3 Review on groundwater at Frenchman Flat, and Yucca
4 Mountain is downgradient from this area. We don't
5 see how such a facility could be built which will
6 eventually release radiation which we then believe
7 would be flowing with this Frenchman Flat release.

8 It's entirely unacceptable. We need to
9 deal with the problems which are here and not
10 create additional problems.

11 We're also aware of the recent --
12 recent, ten years -- 1986 dosimetry system which
13 has produced some question about the original
14 tentative 1965 dosimetry which estimated -- the
15 1986 dosimetry has estimated as much as 7 to 15
16 times greater risk is potential for people working
17 and living near reactors, and we think this is
18 serious.

19 And we'll also have to eventually
20 calculate based on our dose what the new exposure
21 is. Right now we think the standards are too
22 high. We're not even near a standard.

23 That doesn't mean we're unrealistic in
24 dealing with the problem. I think that's what we
25 need to work together. We're here to make that --
1 to give some background, let you know what our

2 experience is, take control of our health but do
3 something in a way which we can work together.
4 Thank you.

5 HEARING OFFICER: Thank you.

6 Is there anybody else in the audience
7 who wishes to make a statement?

8 Anybody else who wants to elaborate on
9 an earlier statement that they made?

10 I propose that we take a brief recess,
11 and then when a new speaker comes in to address the
12 panel we'll reconvene. Thank you very much.

13 (A recess was taken from 1:02 p.m. to
14 2:10 p.m.)

15 HEARING OFFICER: We'll reconvene the
16 hearing.

17 And if you would please state your name
18 and spell your last name. And if you're
19 representing an organization, that's useful as
20 well.

21 MR. NIELSEN: Okay. My name is Rick
22 Nielsen, N-i-e-l-s-e-n.

23 I'm speaking today as a citizen,
24 resident of Las Vegas. The comments are my own,
25 and I'm not representing any organization.

1 Although I have represented other organizations in

2 the past, and I am a member of Citizen Alert.

3 So first of all, I would just like to
4 make the observation that I'm pleased that EPA is
5 holding these hearings, coming out to hear what the
6 public has to say about these very important
7 standards that are being considered.

8 And I feel since you're making the
9 effort to hear from people that it's important for
10 me to tell you what I have to say.

11 In that regard, I must say I am
12 pleasantly surprised that this standard has been
13 put out in its present form, and it includes a
14 groundwater standard, and that the EPA's managed to
15 stick to its guns under the extreme political
16 pressure that I know it's been under these past
17 several years.

18 As we've gone through this process, I've
19 followed it very closely, and I wasn't sure we were
20 ever going to get to this point.

21 And some people may argue that the
22 standard should lean a little bit to one direction
23 or little bit more tight, little less stringent.
24 Personally I think that this standard may be as
25 good as we can get out of EPA under the pressures
1 that you've been under.

2 We'd always like to see -- from my
3 perspective as a resident of Nevada, always like to
4 see something more stringent and less stringent.
5 But in either situation, I think it's essential
6 that we have a groundwater standard, and I am glad
7 to see that EPA has put that into the standard.

8 I think that the boundary should be
9 closer rather than farther away from the
10 repository. And in fact, I would question whether
11 it should be at the door of the repository versus
12 the 3 miles or 5 kilometers.

13 There's a fair amount of -- in fact, an
14 enormous amount of groundwater contamination at the
15 test site right now from the nuclear testing, and I
16 think there's a definite possibility that there
17 could be an added impact from the repository at
18 some point in the future. And that is concern for
19 me as a resident and I think for other people who
20 live nearby, specifically people in Amargosa
21 Valley.

22 And I think -- I've been told that your
23 outer limit, your outer contaminant boundary would
24 actually be in some neighborhoods in the Amargosa
25 area, so I would urge that you consider the closer
1 distance, the closer contaminant boundaries versus

2 the more farther out boundaries.

3 The other thing I would like to raise is
4 the issue of the 10,000 years. I know that's a
5 long time, but I think it's been established that
6 the highest solstice would extend beyond that time
7 period, so that you may need to consider not having
8 a cutoff or a cutoff which is much further out than
9 10,000 years. And I think that was one of the
10 things that was mentioned in the National Academy
11 of Sciences Report.

12 And one of the final things I had to say
13 was that I think that -- I hope that the EPA can
14 maintain its integrity throughout this process as
15 we, you know, get into the finalization of the
16 standards.

17 And I hope that the public comment that
18 you receive both in written and in oral testimony
19 is weighed equally with any other testimony you may
20 receive from government agencies, industry groups
21 or OMB, NRC, whatever.

22 I think this is a public project. It's
23 public health and safety. It's public money. The
24 public needs to be heard, and they need to have
25 their concerns weighed in a way that is equal to
1 other comments that are received.

2 And I just would like to close by saying
3 that I hope you can continue to stick to your guns,
4 and I'll be looking forward to following this
5 through to the end. Good luck.

6 HEARING OFFICER: Thank you.

7 Is there anybody else who wishes to
8 address the hearing at this time?

9 Anybody who has made an earlier
10 statement that wants to elaborate on that
11 statement?

12 All right. We'll once again wait on the
13 next speaker. When they arrive, we'll reconvene
14 and hear their statements. Thank you.

15 (A recess was taken from 2:16 p.m. to
16 3:03 p.m.)

17 HEARING OFFICER: We'll go ahead and
18 reconvene this hearing on EPA's Yucca Mountain
19 proposed standards. We've had somebody who has
20 come to testify.

21 Mr. Cummings, if you'll approach the
22 mike and spell your last name and the organization
23 you're representing, we'll be glad to take any
24 comment that you have.

25 MR. CUMMINGS: It's C-u-m-m-i-n-g-s,
1 first name Peter. I represent the City of Las

2 Vegas. I'm in the Office of Business Development
3 for the City of Las Vegas, and I'm here on behalf
4 of Mayor Oscar Goodman and the City Council of the
5 City of Las Vegas.

6 And I'm here just to say that we will be
7 replying to your request for comments in writing on
8 the standard, but I would like to go on record and
9 on behalf of the Mayor and City Council and say to
10 you that we will be strongly supporting your
11 position on this issue.

12 It's a very important issue to all the
13 elected officials in the city, the Yucca Mountain
14 issue especially, but the issue of this
15 environmental control and that the standards be as
16 high and made as tough as possible actually.

17 Pardon my directness. It's hard for me
18 to envision that we have a potential site that's
19 going to store hundreds of thousands of this
20 nuclear tons of heavy metal material and yet
21 we're -- we, I say we. It seems to me the
22 impression is the Nuclear Regulatory Commission is
23 looking for cost saving ways from the Department of
24 Energy when we're going to have this massive
25 material that's going to be radioactive for 100,000
1 years, and it's not a time to be in my opinion, or

2 at least speaking on behalf of my elected
3 officials, to be cutting corners on the standard.

4 So we strongly support your position,
5 especially the groundwater standard that you
6 mentioned -- that's mentioned in the Federal
7 Register Notice.

8 And I'll go on the record verbally for
9 that on behalf of the Mayor and Council, but we
10 will be responding in writing. That's all I have
11 to say.

12 HEARING OFFICER: Thank you. We
13 appreciate it.

14 Are there any other folks in the
15 audience who wish to make a statement at this
16 time?

17 We'll adjourn again until we get our
18 next speaker. Thank you very much.

19 (A recess was taken from 3:06 p.m. to
20 4:25 p.m.)

21 HEARING OFFICER: We'll reopen the
22 hearing.

23 And if you will, if you have a written
24 statement --

25 MR. HADDER: I have a written statement
1 to submit.

2 HEARING OFFICER: Terrific. If you
3 would in taking the microphone make sure that you
4 give us your name and spell your last name so we're
5 all clear.

6 MR. HADDER: Sure.

7 HEARING OFFICER: That's great. Thank
8 you.

9 MR. HADDER: If I knew I would have this
10 much time, I could have prepared all kinds of
11 stuff.

12 HEARING OFFICER: Right. The floor is
13 yours.

14 MR. HADDER: My name is John Hadder,
15 H-a-d-d-e-r.

16 And I am here to submit this oral and
17 written comment on behalf of Citizen Alert, its
18 members, and the people of Nevada regarding the EPA
19 proposed radiation standards for the Yucca Mountain
20 high level nuclear waste repository.

21 Citizen Alert is encouraged to see the
22 adoption of the safe drinking water standard for
23 Yucca Mountain, and the more stringent individual
24 dose standard of 15 millirems per year to the
25 reasonably maximally exposed individual than the
1 proposed earlier standard by the Nuclear Regulatory

2 Commission.

3 We do have some concerns however. We
4 are concerned that the rule leaves open potentially
5 heightened radiation exposure past the 10,000 year
6 licensing period. It seems that all bets are off
7 after 10,000 years. Citizen Alert feels that this
8 is not in the interest of the public health and
9 violates the intent of the Nuclear Waste Policy
10 Act.

11 Subtitle A, Section 111(a), Paragraph 7
12 states that, "appropriate precautions must be taken
13 to ensure that such waste and spent fuel do not
14 adversely affect the public health and safety of
15 the environment for this or future generations."

16 Why should generations past 10,000 years
17 be subject to a weaker standard, or in this case
18 possibly none at all. In pondering this question,
19 we are left a little suspicious since the Yucca
20 Mountain project's current design intent for the
21 repository appears to be delayed radionuclide
22 release sufficient to comply with standards
23 expected to terminate after 10,000 years.

24 By the DOE's, Department of Energy's,
25 own analysis the groundwater in the accessible
1 biosphere is likely to be contaminated. It is just
2 a matter of when.

3 It appears that this proposed rule
4 conforms with the need of the Yucca Mountain
5 project to comply with the arbitrary 10,000 year
6 time frame and not necessarily when the maximum
7 dose occurs.

8 Citizen Alert insists that the standard
9 be derived independent of the research at Yucca
10 Mountain and be applied at least until the maximum
11 dose has occurred.

12 This rule also weakens substantially the
13 intent of the Nuclear Waste Policy Act by allowing
14 a barrier definition to include engineered barriers
15 that only "decrease the mobility of radionuclides"
16 or "substantially delays the movement of water or
17 radionuclides."

18 Whereas the Nuclear Waste Policy Act
19 defines an engineered barrier to be a man-made
20 component that is designed to "prevent the release
21 of radionuclides."

22 Thus the language in the proposed rule
23 again appears to work in cooperation with the theme
24 of delayed release and doesn't stand alone as a
25 regulation.

1 Being that the purpose of the standard
2 is to protect the public and the first measure of

3 protection is isolation of the waste by not
4 allowing it into the accessible biosphere, Citizen
5 Alert recommends that the barrier definition in the
6 Nuclear Waste Policy Act be retained.

7 Under the individual protection
8 standard, the term reasonably maximally exposed
9 individual is used which is ambiguous, later
10 loosely defined as having a diet and living a style
11 representative of the people who now reside in the
12 town of Amargosa Valley, Nevada.

13 This is a disturbing departure from the
14 usual practice of "subsistence farmer" scenario to
15 assess maximum exposure. To be sure, such a
16 life-style does exist in Amargosa Valley.

17 The point is to define a "critical
18 group" which according to the International
19 Commission on Radiological Protection explicitly
20 states that a critical group represents an extreme
21 of radiation exposure "to ensure that no individual
22 doses are unacceptably high."

23 This reasoning is in the best interest
24 of the public and future generations unlike the
25 definition in the current proposed rule.

1 Citizen Alert also feels that it is
2 necessary and important for the EPA to take a

3 progressive step in applying maximum exposure
4 limits that are less than those in the current rule
5 which stems from the following considerations.

6 First of all, the US Government is
7 embarking upon a project that has never been tried
8 before, and we do not have the luxury of previous
9 experience. Only time will tell whether this grand
10 experiment will achieve the intended goal of waste
11 isolation.

12 Second point, given the current data, it
13 appears as though groundwater contamination will
14 occur at some point in the future and is an
15 irreversible process requiring hundreds of
16 thousands if not millions of years to decay away.

17 The third point, the sheer scope of the
18 Yucca Mountain Project in terms of the amount of
19 waste, the intensity of the radioactivity, and the
20 longevity affords special consideration. Otherwise
21 small and possibly ignorable errors in design will
22 be magnified resulting in potentially enormous
23 impact.

24 And the fourth consideration is there
25 are a number of other countries that have more
1 stringent radiation protection standards than we do
2 in the United States. What do they know that we

3 don't?

4 They may be looking ahead and predicting
5 that as the body of information on the health
6 affects of radiation expands people will demand
7 tighter standards.

8 Certainly the history of exposure
9 standards in this country reveals a trend towards
10 lower allowed exposure in nuclear facilities and
11 the general public.

12 For these reasons, we think it is
13 necessary to have an extra margin of error. What
14 if we are wrong. What if the models don't predict
15 as expected as the DOE expects. What happens
16 then?

17 To be sure, we have been wrong in the
18 past, the Titanic, Exxon Valdez, the Challenger.
19 Need I go on. These things do happen.

20 Citizen Alert strongly urges that the
21 EPA build in that extra cushion of protection for
22 US citizens.

23 In closing, I would just like to say if
24 Nevadans are to swallow this nuclear pill for the
25 entire nation, then the people of the United States
1 and hence the Environmental Protection Agency owes
2 to Nevadans every possible protection afforded by

3 this society to guarantee that the prescription is
4 safe without fatal side affects.

5 Thanks for this time.

6 HEARING OFFICER: Thank you. You've
7 submitted your statement? Great. I appreciate
8 your coming by.

9 MR. HADDER: Yes.

10 HEARING OFFICER: Is Susan Jones here?
11 Is there anybody else in the audience
12 that would like to speak?

13 Okay. We'll take another recess.

14 Susan Jones was signed up for 4:45, so
15 we'll anticipate her arrival.

16 If she doesn't make it, we're talking
17 about breaking for dinner to allow the folks that are
18 supporting us to take a break and get dinner from
19 about 5:00 to 6:30 just for your planning
20 purposes.

21 So we'll plan on being around until
22 5:00, and if Ms. Jones shows up around that time,
23 we'll go ahead and let her speak. Thanks.

24 (A recess was taken from 4:35 p.m. to
25 5:00 p.m.)

1 (A dinner recess was taken from
2 5:00 p.m. to 6:30 p.m.)

3 (A recess was taken from 6:30 p.m. to
4 7:55 p.m.)

5 HEARING OFFICER: We're going to
6 officially do the last call for comments.

7 We haven't had anybody come in for three
8 hours, and we are going to close for the evening.
9 And we'll be back here tomorrow morning at 9:00
10 o'clock unless anybody has any comment that anybody
11 from the audience wants to make.

12 Hearing none, we'll adjourn for the
13 evening and be back here tomorrow at 9:00 o'clock.

14 * * * * *

15 (The proceeding concluded at 7:56 p.m.)
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1 REPORTER'S CERTIFICATE
2

3 STATE OF NEVADA)
4) ss.
5 COUNTY OF CLARK)

6 I, Teresa Lynn Dougherty, Certified
7 Shorthand Reporter, do hereby certify that I took
8 down in Stenotype all of the proceedings had in the
9 before-entitled matter at the time and place
10 indicated and that thereafter said shorthand notes
11 were transcribed into typewriting at and under my
12 direction and supervision and that the foregoing
13 transcript constitutes a full, true and accurate
14 record of the proceedings had.

15 IN WITNESS WHEREOF, I have hereunto set
16 my hand in my office in the County of Clark, State
17 of Nevada, this _____ day of _____,
18 1999.

19

20

21

22

23 _____
Teresa Lynn Dougherty
24 CCR 365

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